Compound	R1	R²	R³
Alpha (α)	CH₃	CH ₃	СН₃
Beta (β)	CH ₃	Н	СН,
Gamma (γ)	Н	CH ₃	СН,
Delta (δ)	Н	Н	СН

Fig. 1

$$R^4$$
 where $X = O$, N, or S and $n = 1 - 10$

B = alkyl alkenyl akynyl aryl and heteroaryl

B = alkyl. alkenyl. akynyl. aryl. and heteroaryl carboxylic acids or carboxylates.

B 1= alkyl, alkenyl, akynyl, aryl, and heteroaryl carboxamides and esters.

B1 = alkyl, alkenyl, akynyl, aryl, and heteroaryl thioamides, thioesters and thioacids,

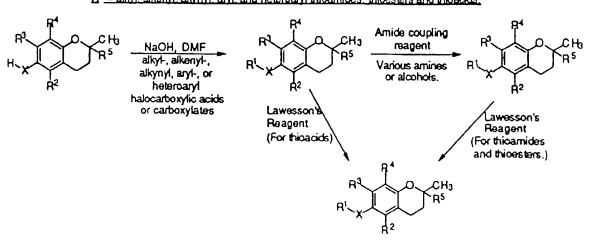
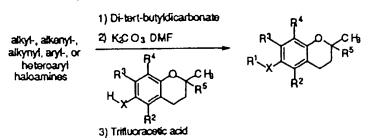


Fig. 2A

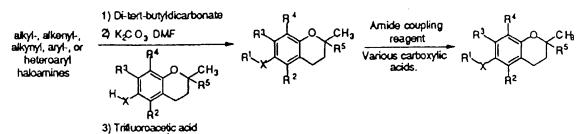
B1 - alkyl alkenyl akynyl and heteroand thiolesters.

R1 - saccharides or alkyloxy-linked saccharides.

R1 = alloy, alkerryl, alcomyl, and heteroaryl amines.

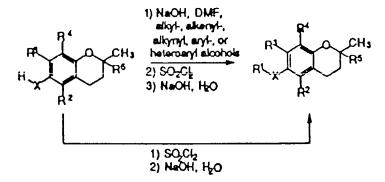


B 1 alkyl, alkenyl, akynyl, aryl, and heteroaryl carboxamides.

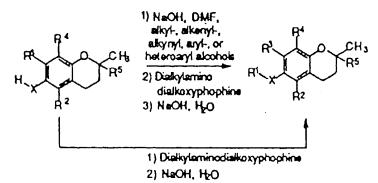


B1 - alloy, alkernyl, alornyl, and helemanyl suffonstes.

B1 - alkyl alkenyl akynyl and and heteroand sulfates.



B1 = alkyl, alkenyl, akynyl, and heteroaryl phosphates.



B1 - alkyl alkenyl akynyl and heteroaryl alcohols, ethers, and nitriles.

Fig. 2C

R² = benzyl carboxylic acid or carboxylate.

R² = benzyl carboxamides or esters.

$$R^2$$
 = saccharkles

 R^3 1) Be, Hexane
 R^3 1) Be, Hexane
 R^3 1) KCN
 R^4 1) LAH

 R^4 Q CH₃
 R^4 Q CH₃

Fig. 3

R3. R4 - benzyl carboxylic acid or carboxylate.

R3. R4 - benzyl carboxamides or esters.

Fig. 4

R⁵ = alkyl_alkenyl_akynyl_aryl_and heteroaryl.

R^5 = alkyl, alkenyl, akynyl, aryl, and heteroaryl amides and esters.

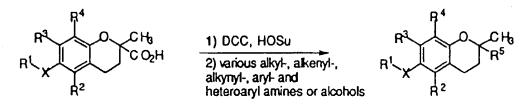
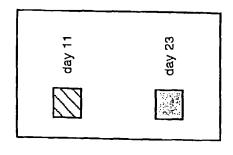


Fig. 6A

4 2 (90%)

Fig. 6B



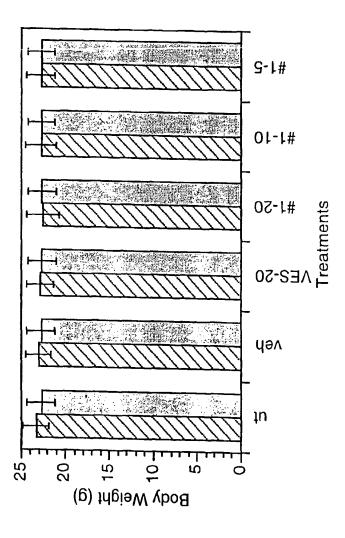


Fig. 7

